SB 10

Soundbar speaker system

Owners Manual

harman/kardon®
by HARMAN

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, or the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
15. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
17. The mains plug of the power supply cord shall remain readily operable.
18. Do not expose batteries to excessive heat such as sunshine, fire or the like.

THE LIGHTNING FLASH WITH AN ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAYBE OF SUFFICIENT MAGNITUDE TO CONSTITUTEA RISK OF ELECTRIC SHOCK TO PERSONS.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE PRODUCT.

SEE MARKING ON BACK OF PRODUCT.

Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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Thank you for purchasing the harman kardon® SB 10 speaker system, with which you're about to begin many years of listening enjoyment. We've custom-designed the SB 10 to provide the excitement and power of the cinema experience in your own living room.

While sophisticated electronics and state-of-the-art speaker components are hard at work within the SB 10, connection and operation are simple.

To obtain maximum enjoyment from your new soundbar speaker system, we urge you to take a few minutes to read through this manual. It will help ensure that the connections you make are correct. In addition, a few minutes spent learning the functions of the various controls will enable you to take advantage of all the power and refinement the SB 10 is able to deliver.

If you have any questions about this product, its installation or its operation, please contact the dealer from whom you purchased it. They would be your best local source of information.

The SB 10 is a soundbar speaker system that includes:

- A video-shielded, three-channel soundbar speaker with two-way left and right speakers and a two-way, dual-driver center-channel speaker
- A 200-watt powered subwoofer with an 8-inch woofer
- Wall-mount brackets for the soundbar
- Three speakers cables for the soundbar and a LFE/trigger cable for the subwoofer

The SB 10 soundbar contains the system's left, center and right speakers. You can set the soundbar on a table in front of your TV. The system includes hardware that makes it easy to mount the soundbar on the wall next to a flat-panel TV.

The powered subwoofer's 8-inch (203mm) woofer and built-in 200-watt amplifier deliver all of a movie's impact and excitement. It includes a volume control, bass boost control and phase switch for fine-tuning bass response to suit your listening environment, and an efficient switching system that senses the presence of an audio signal and automatically switches the subwoofer on.

harman kardon invented the high-fidelity receiver more than 50 years ago. With state-of-the-art features and time-honored circuit designs, the SB 10 will turn your TV into a fun and exciting home theater.

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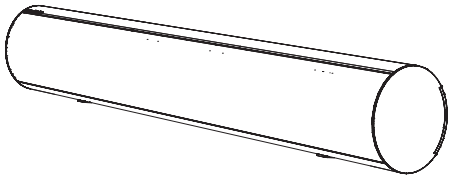
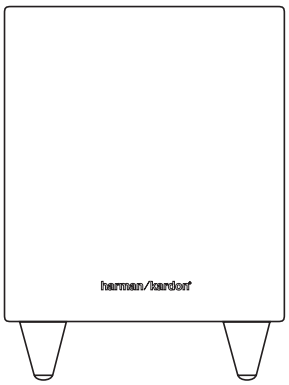
Included Items

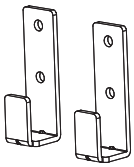
One SB 10 three-channel soundbar speaker



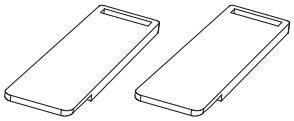
One 200-watt subwoofer with 8" (200mm) low-frequency transducer



Two wall-mount brackets for the SB 10 soundbar

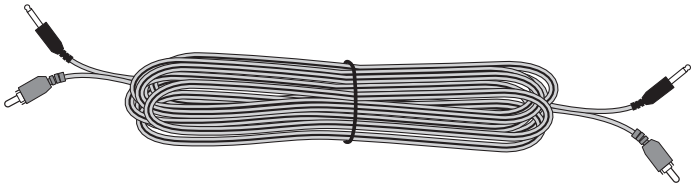


Two rubber feet



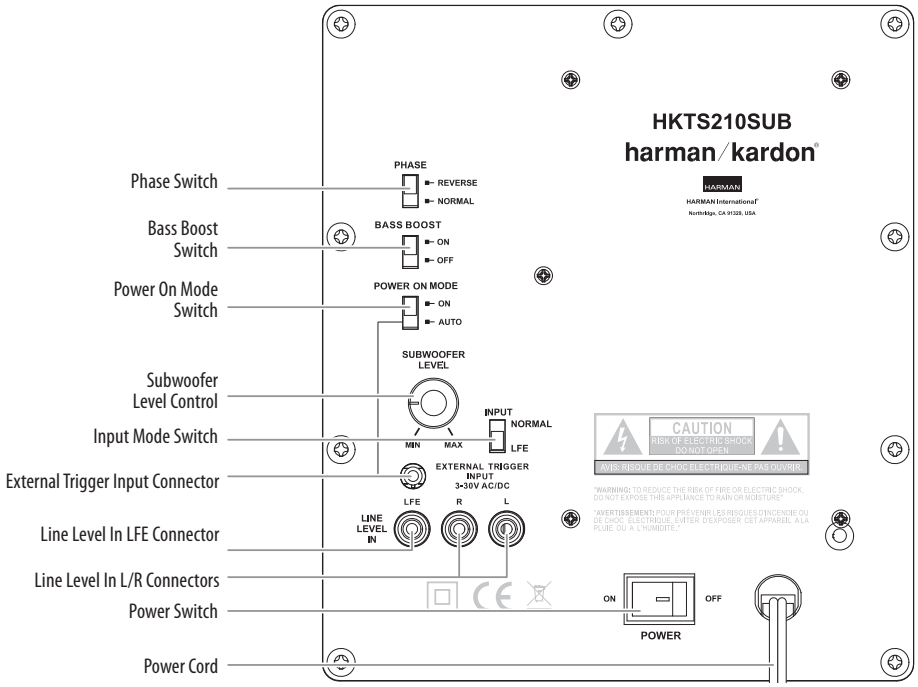
Three speaker cables: One with white color bands, one with green color bands and one with red color bands.

One combination LFE/trigger cable



Important: If anything is missing, or if any part of your SB 10 system fails to operate properly, contact your dealer immediately.

Subwoofer Rear-Panel Controls and Connections



Phase Switch: This switch determines whether the HKTS 210SUB's driver's piston-like action moves in and out in phase with the speakers in the soundbar. If the subwoofer were to play out of phase with the soundbar speakers, the sound waves from the soundbar could cancel out some of the sound waves from the subwoofer, reducing bass performance and sonic impact. This phenomenon depends in part on the placement of the soundbar and subwoofer relative to each other in the room.

Bass Boost Switch: Set this switch to "On" to enhance the HKTS 210SUB's low-frequency performance. Set this switch to "Off" for normal low-frequency performance.

Power On Mode Switch: When this switch is set in the "Auto" position and when the Power switch is set to "On," HKTS 210SUB will automatically turn itself on when it receives an audio signal. The subwoofer will enter the Standby mode when it has gone without receiving an audio signal for about 15 minutes. When this switch is set in the "On" position, the subwoofer will remain on whether or not it is receiving an audio signal.

- When the LED glows blue, the HKTS 210SUB is in the On mode.
- When the LED is off, the HKTS 210SUB is in Standby mode. When the Power switch is set to "Off," the LED will not light up, no matter what setting the Power On Mode switch is in.

Subwoofer Level Control: Use this control to adjust the HKTS 210SUB's volume. Turn the knob clockwise to increase the volume; turn the knob counterclockwise to decrease the volume.

Input Mode Switch: When this switch is in the "Normal" position, the input signal from the Line Level In L/R connectors is active. When this switch is in the "LFE" position, the input signal from the Line Level In LFE connector is active.

External Trigger Input Connector: Use the mini-plug of the supplied combination LFE and trigger cable to connect the External Trigger Input connector to the trigger output of another compatible component. Whenever the HKTS 210SUB's amplifier detects a trigger signal between 3V and 30V (AC or DC) the amplifier will turn on. The amplifier will turn off after the trigger signal ceases, even when the Power On Mode switch is in the "Auto" position.

Line Level In LFE Connector: The signal from this connector bypasses the subwoofer's internal low-pass crossover. When you're connecting the subwoofer to the dedicated subwoofer output of a receiver/processor that has its own low-pass crossover network, use the Line Level In LFE connector and set the subwoofer's Input Mode switch in the "LFE" position.

Line Level In L/R Connectors: The signals from these connectors pass through the subwoofer's internal low-pass crossover. When you're connecting the subwoofer to the preamp or subwoofer outputs of a receiver/processor that does not have its own low-pass crossover network, use both Line Level In L/R connectors and set the Input Mode switch in the "Normal" position. If your receiver/processor has only one subwoofer output, you can use either the L or R connector.

Power Switch: Set this switch in the "On" position to turn the HKTS 210SUB on. The subwoofer will then be in either on or Standby mode, depending on the setting of the Power On Mode switch.

Power Cord(non-detachable): After you have made and verified all subwoofer and speaker connections described in this manual, plug this cord into an active, *unswitched* electrical outlet for proper operation of the HKTS 210SUB. DO NOT plug this cord into the accessory outlets found in some audio components.

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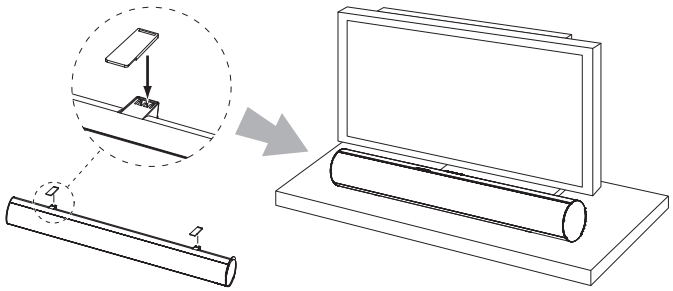
Speaker Placement

Placing the Soundbar on a Table

If your TV is placed on a table, you can place the soundbar on the table directly in front of the TV stand, centered with the TV screen. Attach the supplied rubber feet to the soundbar as shown in the illustration.



If your TV is located in an entertainment or media center, you can mount the soundbar in a space directly above or below the TV.

Warning: Do NOT place the soundbar directly on top of a TV or at the front of a table or cabinet. It could roll forward and injure someone.

Wall-Mounting the Soundbar

If your TV is attached to a wall, you can use the included wall-mount brackets to mount the soundbar on the wall directly below the TV screen.

1. Determine the location for the soundbar on the wall. Make sure that the top of the soundbar will not block your view of the TV screen when it is mounted on the wall.
2. Mark the locations of the soundbar wall-mount bracket holes on the wall. The holes for the left and right brackets are spaced 600mm (23-5/8") apart. The top and bottom holes for each bracket are spaced 25mm (1") apart. See the illustration below.

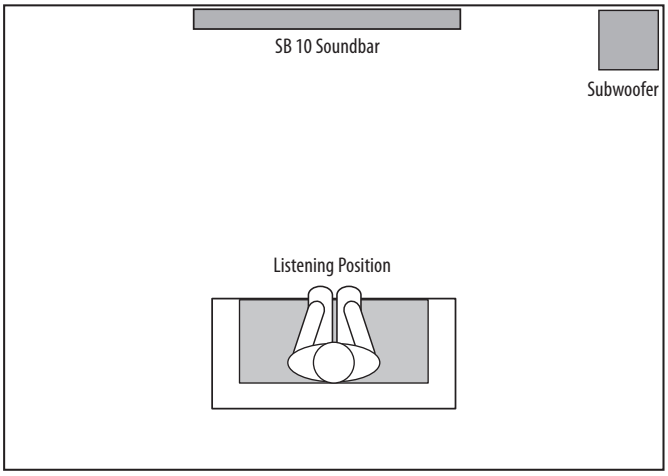
NOTE: To ensure that the soundbar will be level, use a carpenter's level, laser sight or other device to help you determine that the two sets of holes are at exactly the same height.

Attach the two wall-mount brackets to the wall at the locations you marked, using hardware that is appropriate for the wall's construction and materials. Note that the soundbar weighs 3.67kg (8.1 lb). Be sure to use hardware that can support this weight.

After making all of the connections described in the *Connections* section, on page 8, attach the soundbar to the brackets by sliding the slots in its rubber bumpers onto the brackets' vertical tabs.

Placing the Subwoofer

Since our ears cannot locate the source of sounds at the low frequencies that the subwoofer produces, it will perform well from just about any location in your room. However, you are likely to hear the strongest bass reproduction when you place the subwoofer in a corner along the same wall as the soundbar.



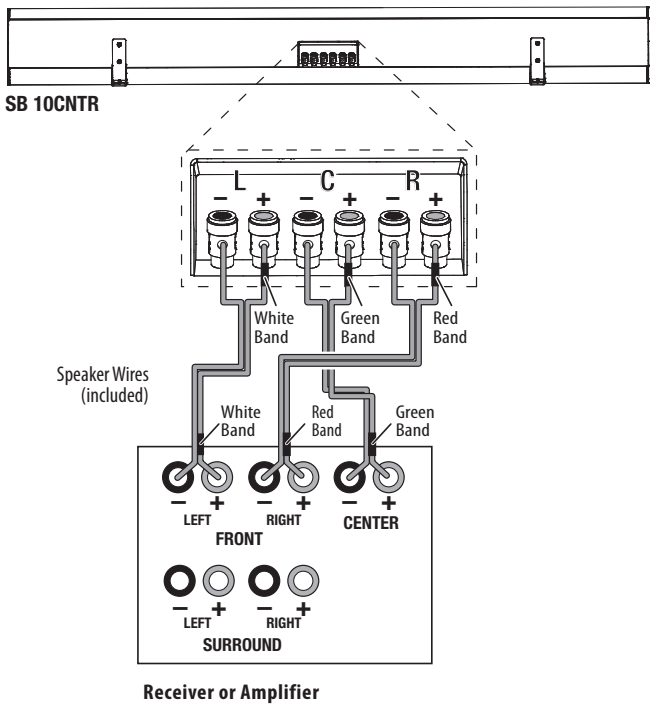
You can determine the best location for the subwoofer by temporarily placing it in the listening position and playing music with strong bass content. Move around to various locations in the room while the system is playing, and listen until you find the location where the bass performance is best. Place the subwoofer in that location.

Connections

CAUTION: Before making speaker connections, be sure that your receiver or amplifier is turned off. If possible, make sure that its AC cord is unplugged from the AC power outlet.

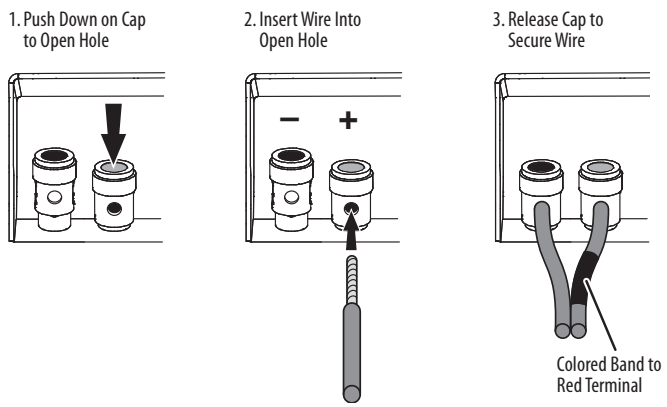
Soundbar Connections

The SB 10 soundbar contains left-, center- and right-channel speakers that connect to your audio/video receiver or amplifier's front left, center and front right speaker outputs.



To connect each wire to the soundbar:

1. Press down on the terminal cap to open the connection hole on the soundbar's speaker terminal.
2. Insert the wire's bare end all the way into the hole. Insert the conductor with the colored band into the speaker's red (+) terminal, and insert the other conductor into the speaker's black (–) terminal, as shown in the illustration.
3. Release the cap to secure the wire.

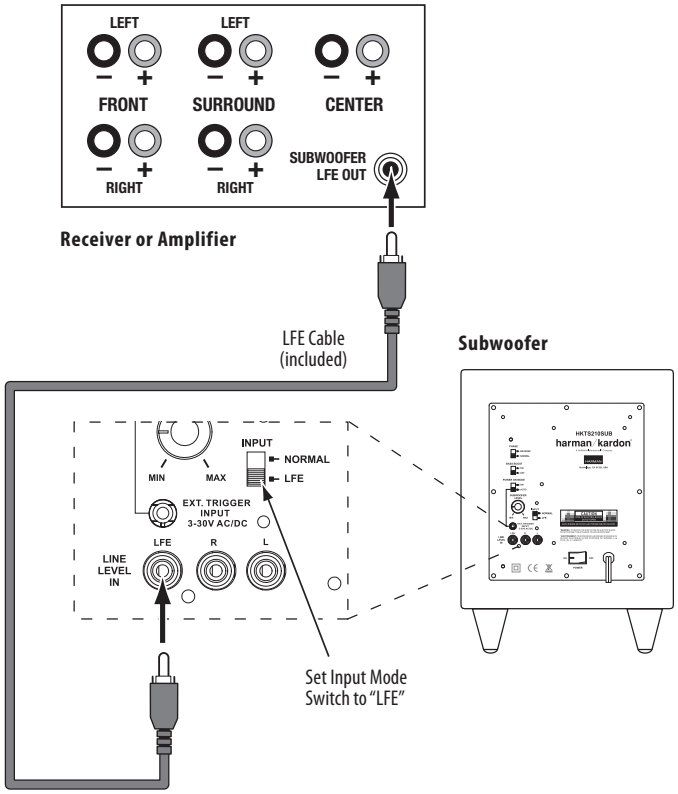


IMPORTANT: Make sure the (+) and (–) bare wires do not touch each other or the other terminal. Touching wires can cause a short circuit that can damage your receiver or amplifier.

Subwoofer Connections

1a If your receiver/processor has a dedicated subwoofer output with low-pass filtering (also called bass management), use the included LFE cable to connect the subwoofer's Line Level LFE In jack to the dedicated subwoofer output (or LFE output) of your receiver or preamp/processor. Set the subwoofer's Input Mode switch to the "LFE" position.

Configure your receiver or preamp/processor's setup menu for Subwoofer ON, and set the front left, front right, center and surround speakers to Small. If your receiver or preamp/processor offers a choice of subwoofer low-pass filter crossover frequencies, choose 150Hz or the one closest to 150Hz.



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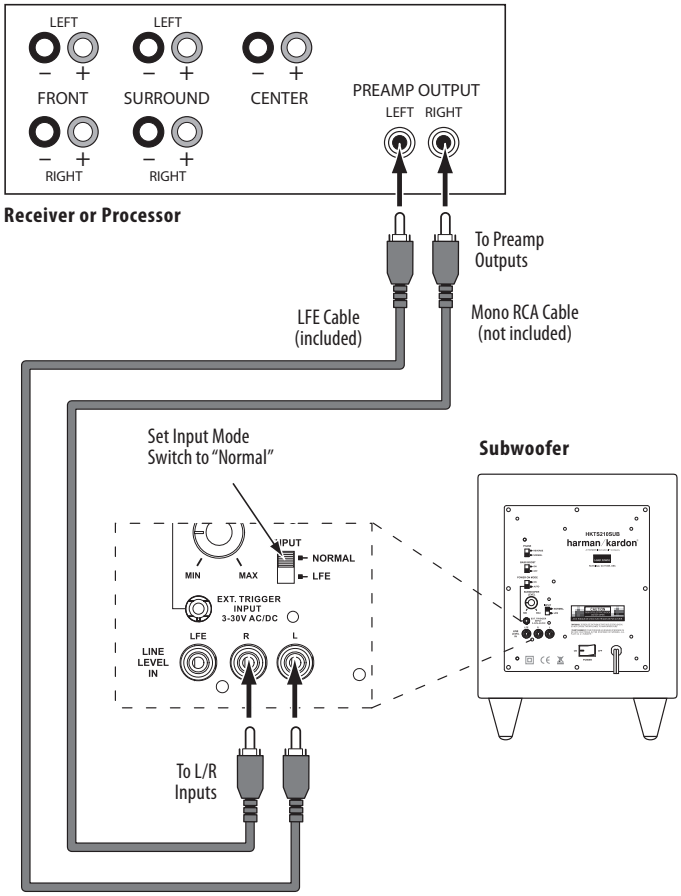
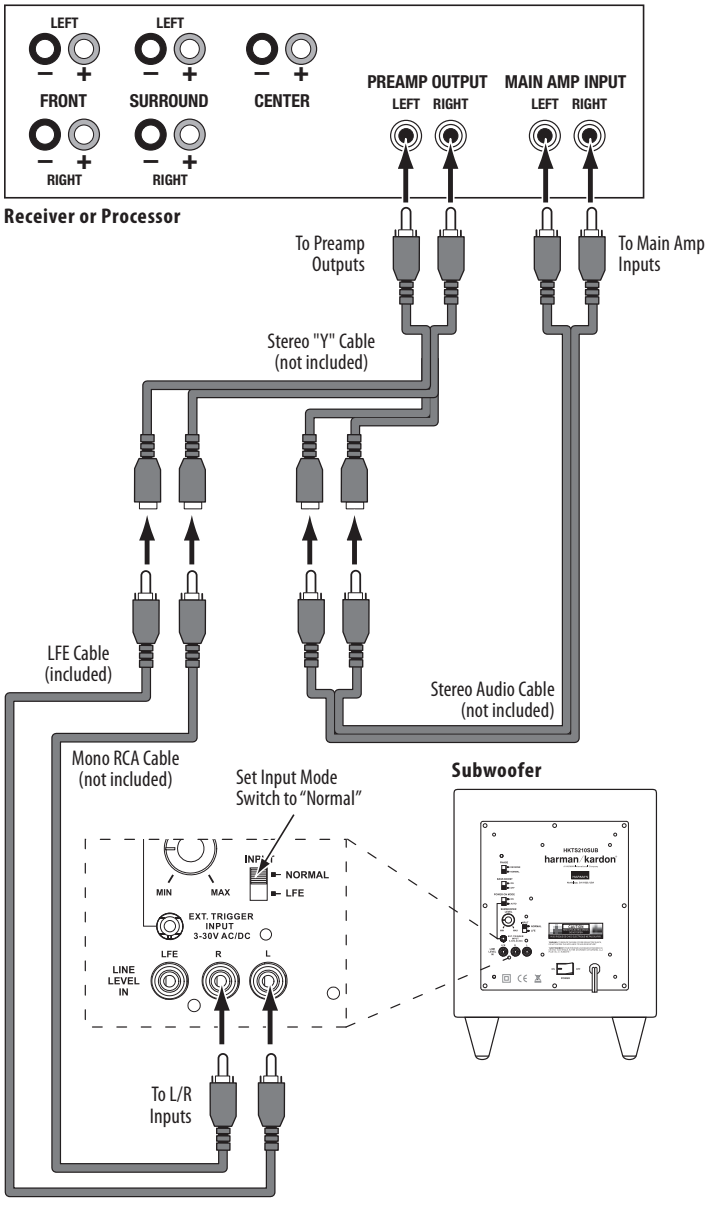
1b If your receiver/processor does not have a dedicated subwoofer output but does have preamp-level (volume-controlled) line outputs, use the included LFE cable to connect one of those outputs to either of the subwoofer's Line-Level L/R In Connectors. Use an RCA cable (not supplied) to connect the other receiver or preamp line output to the other subwoofer Line-Level L/R In connector. Set the subwoofer's Input Mode switch to the "Normal" position.



If you're connecting to a receiver or preamp/processor with left and right line outputs that are connected to front left and front right amplifier inputs, connect the single ends of Y-adapters (not supplied) to the receiver or processor's left and right line outputs. Connect one of the Y-adapter's double ends to the subwoofer's Line Level L/R In connectors, and connect the other double end to your amplifier's front left and front right inputs. Set the subwoofer's Input Mode switch to the "Normal" position.

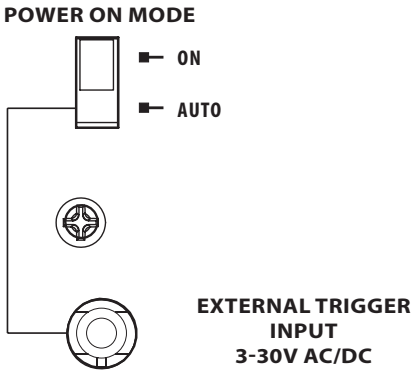


2. After you have made and verified all other connections, plug the subwoofer's Power cord into an active, unswitched AC outlet. DO NOT plug this cord into the accessory outlets found on some audio components.

Operation

Turning the Subwoofer On and Off

Set the subwoofer's Power Switch to the "On" position.



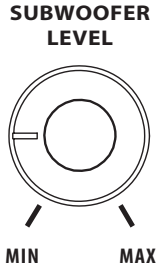
- If you set the Power On Mode Switch to "Auto," the subwoofer will automatically turn itself on when it receives an audio signal, and it will go into the Standby mode once it has received no audio signal for 20 minutes. The subwoofer's LED will glow white when the subwoofer is on, and will not light up when the subwoofer is in the Standby mode.
- If the Power-On Mode Switch is set to "On," the subwoofer will remain on at all times. The subwoofer's LED will glow white.

If the External Trigger Input Connector is connected to a voltage source, the subwoofer will turn on whenever the source generates a trigger voltage and will go into Standby mode 10 to 15 minutes after the trigger voltage ceases, regardless of the position of the Power On Mode switch.

If you will not be using the subwoofer for an extended period, set the Power switch to the "Off" position.

Subwoofer Adjustments: Volume

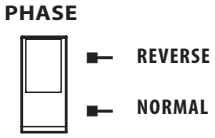
Use the Subwoofer Level control to set the subwoofer's volume. Turn the knob clockwise to increase the subwoofer's volume; turn the knob counterclockwise to decrease the volume. Once you have balanced the subwoofer's volume with that of the other speakers in your system, you shouldn't have to change it.



Subwoofer Adjustments: Phase

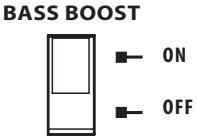
This switch determines whether the subwoofer driver's piston-like action moves in and out in phase with the soundbar speakers. If the subwoofer were to play out of phase with the soundbar speakers, the sound waves from the soundbar could cancel out some of the sound waves from the subwoofer, reducing bass performance and sonic impact. This phenomenon depends in part on the placement of all the speakers relative to each other in the room.

Although in most cases you should leave the Phase switch in the "Normal" position, there is no absolutely correct setting for the Phase switch. When the subwoofer is properly in phase with the soundbar speakers, the sound will be clearer and have maximum impact, and percussive sounds like drums, piano and plucked strings will sound more lifelike. The best way to set the Phase switch is to listen to music that you know well and set the switch in the position that gives drums and other percussive sounds maximum impact.



Subwoofer Adjustments: Bass Boost

When set to the "On" position, the Bass Boost switch enhances low-frequency performance. The results: bass with more impact, which you may prefer while watching movies or listening to music. There is no harm in experimenting with this control. Setting the switch to the "Off" position will return the subwoofer to its normal low-frequency performance.



Troubleshooting

This unit is designed for trouble-free operation. Most problems users encounter are due to operating errors. So if you have a problem, first check this list for a possible solution. If the problem persists, consult your authorized harman kardon service center.

Problem	Solution
If no sound comes from any of the soundbar speakers:	• Check that the receiver/amplifier is on and a sound source is playing. • Make sure that all wires between the receiver/amplifier and the soundbar are connected properly. • Make sure that none of the speaker wires is frayed, cut or punctured. • Review the proper operation of your receiver/amplifier.
If there is no sound coming from the soundbar's left or right speaker:	• Check that the balance control on your receiver/amplifier is not set all the way to one channel. • Check your receiver/amplifier's speaker-setup procedure to make sure that the speaker in question has been enabled and that its volume level has not been turned all the way down. • Make sure that all wires between the receiver/amplifier and the soundbar left or right speaker terminals are connected properly. • Make sure that the speaker wires are not frayed, cut or punctured.
If there is no sound coming from the soundbar's center speaker:	• Check your receiver/amplifier's speaker-setup procedure to make sure that the center speaker has been enabled and its volume level has not been turned all the way down. • Make sure that all wires between the receiver/amplifier and the soundbar's center speaker terminals are connected properly. • Make sure that the speaker wires are not frayed, cut or punctured. • If your receiver is operating in Dolby® Pro Logic® mode, make sure that the center speaker is not set to Phantom.
If the subwoofer does not turn on:	• Check that the subwoofer's Power cord is plugged into a working AC outlet. • Check that the subwoofer's Power switch is in the On position.
If there is no sound coming from the subwoofer:	• Check that the subwoofer's Power cord is plugged into a working AC outlet. • Check that the subwoofer's Power switch is in the "On" position. • Check that the Subwoofer Level control is not turned all the way down (fully counterclockwise). • Check the audio cable connection between your receiver/processor and the subwoofer. • Check your receiver/amplifier's speaker-setup procedure to make sure that the subwoofer has been enabled and that its volume level has not been turned all the way down.
If the system plays at low volumes but shuts off as volume is increased:	• Make sure that all wires between the receiver/amplifier and the soundbar are connected properly. • Make sure that none of the speaker wires is frayed, cut or punctured. • If you have an additional pair of front speakers connected to your receiver/amplifier, make sure that you're not operating the system below the receiver/amplifier's minimum impedance requirements. Check the receiver/amplifier's documentation for more information.

You can find additional troubleshooting information by clicking on the FAQs link on the Support page at www.harmankardon.com.

Specifications

SB 10 system	
Frequency response:	45Hz – 20kHz (–6dB)
SB 10 soundbar speaker	
Low-frequency transducer	
Left:	3" (76mm) paper cone, video-shielded
Right:	3" (76mm) paper cone, video-shielded
Center:	Two 3" (76mm) paper cones, video-shielded
High-frequency transducer	
Left:	3/4" (19mm) silk dome, video-shielded
Right:	3/4" (19mm) silk dome, video-shielded
Center:	3/4" (19mm) silk dome, video-shielded
Recommended power handling	
Left –Right:	60 watts (each)
Center:	100 watts
Nominal impedance:	8 ohms (each channel)
Sensitivity (2.83V/1m):	84dB (each channel)
Crossover frequency:	2.2kHz, 24dB/octave
Connector type:	Push-spring terminal
Enclosure type:	Sealed
Finish:	Gloss black
Dimensions (H x W x D):	4-5/16" x 36-1/4" x 3-1/2" (110mm x 920mm x 89mm)
Weight:	8.1 lb (3.67kg)
Powered Subwoofer	
Low-frequency transducer:	8" (200mm) down-firing cone, video-shielded
Amplifier power:	200 watts
Frequency response:	45Hz – 200Hz (–6dB)
Controls:	Volume, phase, bass boost
Connections:	LFE input, left and right RCA line-level inputs
Enclosure type:	Sealed
Finish:	Gloss black
Power requirement:	AC 100 ~ 120V, 50/60Hz, 200W or AC 220 ~ 240V, 50/60Hz, 200W
Power consumption:	<1W (standby); 200W (maximum)
Dimensions (H x W x D):	13-29/32" x 10-1/2" x 10-1/2" (353mm x 267mm x 267mm)
Weight:	19.8 lb (9kg)

HARMAN

HARMAN Consumer, Inc.
8500 Balboa Boulevard, Northridge, CA 91329 USA
516.255.4545 (USA only)

Made in P.R.C.

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Features, specifications and appearance are subject to change without notice.

Part No. 950-0294-001 Rev. A

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